BY ORDER OF THECOMMANDER
SPANGDAHLEM AB (USAFE)

SPANGDAHLEM AIR BASE
INSTRUCTION 91-201

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Safety

EXPLOSIVES SAFETY AND NUCLEAR SURETY STANDARDS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directives (AFPD) 91-1, *Nuclear Weapons and Systems Surety*, 91-2, *Safety Programs*, Department of Defense (DoD) 6055.9-Std, *DoD Ammunition and Explosives Safety Standards*, Air Force Manual (AFMAN) 91-201, *Explosives Safety Standards* and Air Force Instructions (AFI) 91-202, *The US Air Force Mishap Prevention Program* and 91-101, *Air Force Nuclear Weapons Surety Program*. The purpose of this instruction is to ensure safety and surety standards are adhered to for conditions unique to Spangdahlem Air Base (SAB), Geographically Separated Units (GSU), and visiting units. Its aim is to provide the maximum possible protection to personnel and property from the damaging effects of mishaps involving ammunition and explosives (AE). This instruction establishes a central source for managing explosives safety and nuclear surety in a manner consistent with established standards. It outlines electromagnetic radiation (EMR) hazards, compensatory measures, and in-transit explosives procedures. It establishes Weapons Safety, Nuclear Surety and Nuclear Certified Equipment (NCE) program management for all unit safety representatives on SAB and Munitions Support Squadrons (MUNSS). Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual 33-363 United States Air Forces in Europe (USAFE) Supplement, Management of Records, and disposed of IAW the Air Force Records Disposition Schedule (RDS) located at: **https://www.my.af.mil/afrims/afrims/afrims/rds/rds_series.cfm**. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication; route AF Form 847s from the field through the appropriate functional chain of command.

SUMMARY OF CHANGES

This document has been changed entirely and requires full review. New flight line fire symbol posting procedures, removed unit specific requirements. Updated Additional Duty Weapons Safety Representatives (ADWSR) program management and added NCE and Nuclear Surety program guidance to include delegated duties for GSU ADWSRs. Revised Dull Sword reporting timelines due to more restrictive suspense in AFMAN 91-221.

Chapter 1

PROGRAM OVERVIEW

1.1. Safety Standards. The goals of 52 FW Weapons Safety (SEW) explosive, weapons and surety programs are to ensure safe working environments and prevent injuries and/or mishaps.

1.1.1. Unless otherwise stated in locally written instruction(s) approved/reviewed by 52 FW/SEW, all personnel involved with explosive operations will adhere to the standards of this regulation and all other applicable directives for explosive operations.

1.1.2. Net Explosive Weight (NEW) limits, D-8 maps, Explosive Site Plans (ESP), EMR Surveys, Explosive, NCE and Surety programs and templates are located on the 52 FW/SEW ICE Page at: **https://ice.usafe.af.mil/sites/52FW/SE/sew/default.aspx**.

Chapter 2

RESPONSIBILITIES

2.1. 52 FW/Group and Squadron CCs. Unit commanders will ensure all personnel adhere to standards IAW all directives including locally written instructions, compensatory measures and risk assessments related to explosive safety and nuclear surety procedures and operations.

2.2. 52 CES/CEI will:

2.2.1. Conduct a restrictive easement inspection each calendar quarter; the German Military District Administration "Standortverwaltung Gerolstein" (STOV) and 52 FW/SEW are invited to assist. 52 FW/SEW and STOV personnel will accompany CE annually to ensure no encroachments exist inside the restrictive easement.

2.2.2. 52 FW/SEW will type the results of the easement inspection and coordinate with 52 CES/CEI.

2.2.3. 52 FW/SEW will provide a copy of the restrictive easement inspection results to 52 CES/CEI quarterly.

Chapter 3

EXPLOSIVE SAFETY

3.1. Compensatory Measures. Compensatory measures are used to mitigate explosive violations, electromagnetic radiation hazards or both. Personnel must initiate the appropriate compensatory actions to avoid safety standard violations, found in locally written instructions.

3.1.1. Explosive operations should be planned to be as least restrictive as possible.

3.1.1.1. The person in charge of the operation will notify the appropriate agency (Maintenance Operations Center (MOC), Munitions Control, etc.) prior to operation/measure(s) beginning.

3.2. Flight Line Fire Symbols. This paragraph applies to the SAB flight line only. MUNSS units will not post fire or chemical symbols IAW AFMAN 91-201. All personnel involved in explosive operations will adhere to the following standards:

3.2.1. One fire symbol may be posted at the entry point (point of entry for fire- fighting personnel) to an aircraft area IAW AFMAN 91-201, Para. 10.7.8.2.

3.2.2. Flight line areas at Spangdahlem AB are defined as:

3.2.2.1. 1st Generation (Gen) HAS area.

3.2.2.2. 3rd Gen HAS area.

3.2.2.3. 726 Aircraft Mobility Squadron (AMS) area (Ramps 5 and 6).

3.2.2.4. Ramps 1, 2, 3 and 4.

3.2.2.5. See Attachment 2 - Flight Line Area Map.

3.2.3. Notify the applicable agency (e.g., Munitions Control, MOC, Fire Department) each time firefighting symbols are changed with, at a minimum, the location/building number and all applicable fire/chemical symbols.

3.3. Hardened Aircraft Shelter (HAS) Doors. All HAS doors will remain closed while explosives are present with the following exceptions:

3.3.1. Aircraft loaded with the items listed below are exempt from Quantity Distance (QD) criteria; HAS doors may remain open provided that quantities are limited to a single aircraft load IAW AFMAN 91-201:

3.3.1.1. HD 1.2.2 gun ammunition, 30 mm or less.

3.3.1.2. HD 1.3 installed aircraft flares.

3.3.1.3. HD 1.4 munitions (i.e., chaff squibs, captive-carry training missiles, BDUs).

3.3.1.4. Installed explosives necessary for safe flight operations listed in AFMAN 91-201. See Technical Order 11A-1-33 for further information.

3.3.2. Doors may be opened for short periods of time to allow aircraft towing, fueling, servicing, run up, or taxi, and during concurrent servicing operations or when maintenance equipment or while explosives are being moved into or out of shelters.

3.3.3. While Aerospace Ground Equipment (AGE) is in use, doors will be opened for ventilation IAW AFMAN 91-201:

3.3.3.1. For a 1st Gen HAS, door(s) will be opened to allow ventilation.

3.3.3.2. For a 3rd Gen HAS, door(s) will be opened to the 10' line to allow ventilation; rear blast doors may also be opened for additional ventilation.

3.3.4. Once AGE is no longer in use, all doors will be closed.

3.3.5. During flying operations, do not open the doors until the aircrew shows if explosives not in paragraphs 3.3.1.1 through 3.3.1.4 are present.

3.4. In-Transit Explosives. Explosives are considered in-transit while actively being moved between sited locations.

3.4.1. Site Plans only authorize the area inside a HAS at SAB; hardstands, aprons and all other areas surrounding a HAS are not sited for explosive storage or operations. Refer to the 52 FW/SEW ICE Page for detailed ESP information.

3.4.2. Explosives are considered in-transit when:

3.4.2.1. An explosive-laden trailer is connected to the tow vehicle and the driver is present.

3.4.2.2. An explosive-laden trailer is disconnected outside of a HAS provided load crews download all munitions immediately into the HAS or onto the aircraft inside. If not, explosives will be stored inside the sited HAS, with doors closed, until a crew is available.

3.4.2.3. An explosive-laden trailer is loaded outside of a HAS provided, once fully loaded, it is immediately connected to a tow vehicle with a driver present. If not, explosives will be stored inside a sited HAS, with doors closed, until a driver and tow vehicle are available.

Chapter 4

HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO)

4.1. Electromagnetic Radiation Surveys.

4.1.1. 52 FW/SEW will prepare and maintain the HERO package for Spangdahlem AB and all MUNSS units. MUNSS safety personnel will help prepare and maintain the HERO package for their installation IAW applicable guidance.

4.1.2. All current HERO packages will be maintained on the 52 FW/ICE Page.

4.1.3. The HERO package will be provided to base users, Explosives Ordnance Disposal (EOD), Munitions Supervision/Control, fire department, and any other organization deemed necessary.

4.2. EMR Program. It is critical for all SEW offices to maintain a current listing of emitters on the installation to ensure a safe operating environment is maintained at all times.

4.2.1. 52 FW/SEW will:

4.2.1.1. Review and document all EMR listings quarterly.

4.2.1.2. Conduct and document a quarterly EMR meeting with, at least, one representative from each GSU.

4.2.2. 52 CS will:

4.2.2.1. Route work orders via Work Order Maintenance System (WOMS) from the 52d Communications Squadron Plans and Programs section, for installation of new emitter antenna systems to 52 FW/SEW for approval prior to emitter antennas being installed or relocated.

4.2.2.2. 52 FW Installation Spectrum Manager (ISM) will provide all new emitter parameter information to 52 FW/SEW for approval prior to emitter system being installed or relocated. The ISM will assist 52 FW/SEW during the EMR listing review at least annually.

4.2.3. MUNSS/SEW offices will:

4.2.3.1. Post the current EMR listing on the 52 FW ICE Page quarterly.

4.2.3.2. Maintain a Memorandum of Agreement with host nation to receive information for all emitters being installed or relocated on the installation.

4.3. Modern Mobile Emitters (MME). The term MME is used to describe radio frequency transmitters; this includes, but is not limited, to cellular phones, remote key fobs, Personal Digital Assistants, barcode readers, wireless computers, and other transmitters that can be brought near Electro-Explosive Devices (EED).

4.3.1. MMEs are not authorized to transmit within 10 feet of all AE. A greater distance may be required as documented in the HERO package/EMR survey. Direct all questions to 52 FW/SEW and/or the local MUNSS/SEW office as applicable.

Chapter 5

WEAPONS SAFETY PROGRAM

5.1. ADWSR Duties. Units at and above squadron level with an explosives, missile, nuclear or directed energy weapons mission must have a weapons safety program. ADWSRs will:

5.1.1. Be appointed by their Squadron CC and have a minimum of 1 year (projected) remaining on station.

5.1.2. Receive ADWSR training from 52 FW/SEW within 30 days of appointment.

5.1.3. Inform 52 FW/SEW of any weapons safety related deficiencies or changes within their unit/mission.

5.1.4. Attend all ADWSR meetings scheduled and chaired by 52 FW/SEW (either the primary or alternate).

5.1.5. Ensure all required explosive safety training is documented and tracked for unit individuals handling, transporting or maintaining explosives.

5.1.5.1. Ensure personnel without current explosive safety training do not perform operations involving explosives.

5.1.6. Conduct and Document Spot Inspections IAW AFI 91-202, the Chief of Safety spot inspection policy letter, and this publication.

5.1.6.1. Only MUNNS units may utilize “JJ’s Database” to log spot inspections.

5.1.7. Utilize the SEW-3 Management Internal Control Toolset (MICT) checklist to assess their program IAW AFI 90-201, *The Air Force Inspection System*.

5.2. ADWSR Program Management. Unless otherwise noted, the 52 FW/SEW ICE Page will be the sole location for weapons safety program documentation to be maintained.

5.2.1. 52 FW/SEW will set up program folders on the ICE page for units.

5.2.2. The unit ADWSR will maintain program documentation on the ICE Page.

5.2.3. Missing documentation/suspenses will be annotated using a Memo For Record (MFR) from the ADWSR to 52 FW/SEW, signed by the unit CC.

5.2.4. ADWSRs will only use approved 52 FW/SEW templates for program documentation.

Chapter 6

NUCLEAR SURETY PROGRAM

6.1. Nuclear Surety Monitor Duties. Squadrons involved with the nuclear enterprise will appoint nuclear surety monitors from within the unit to manage their unit's surety program. Nuclear surety monitors will:

6.1.1. Be appointed by their Squadron CC and have a minimum of 1 year (projected) remaining on station.

6.1.1.1. GSUs will appoint, at a minimum, two Weapons Safety personnel consisting of:

6.1.1.1.1. One 21M officer.

6.1.1.1.2. One 2WXXX NCO.

6.1.1.1.3. At least one year of MUNSS and/or nuclear related experience is preferred, but not required.

6.1.1.1.4. Nuclear Surety Monitor will not be appointed to conflicting inspection/investigation roles such as Quality Assurance (QA).

6.1.2. Receive Nuclear Surety Monitor training from 52 FW/SEW within 30 days of appointment.

6.1.3. Inform 52 FW/SEW of any nuclear surety related deficiencies or changes within their unit/mission.

6.1.4. Attend all nuclear surety meetings scheduled and chaired by 52 FW/SEW (either the primary or alternate).

6.1.5. Coordinate with the 52 FW/SEW on all matters concerning nuclear surety.

6.1.6. Ensure all required surety training is documented and tracked for unit individuals.

6.1.6.1. Ensure personnel without current nuclear surety training do not perform nuclear-related duties.

6.1.7. Complete and maintain all required surety MICT checklists IAW AFI 90-201, *The Air Force Inspection System*.

6.2. GSU Delegated Duties. MUNSS Weapons Safety Managers (WSM) and Unit Safety Representatives (USR) may perform wing/base level WSM and USR duties if delegated by higher headquarters instructions and authorized by the 52 FW Chief of Safety.

6.3. Nuclear Surety Program Management. Unless otherwise noted, the 52 FW/SEW ICE Page will be the sole location for nuclear surety program documentation to be maintained.

6.3.1. 52 FW/SEW will set up program folders on the ICE page for units.

6.3.2. Nuclear Surety monitors will maintain program documentation on the ICE Page.

6.3.3. Missing documentation/suspenses will be annotated using an MFR from the Nuclear Surety Monitor to 52 FW/SEW and signed by the unit CC.

6.3.4. Nuclear surety monitors will only use approved 52 FW/SEW templates for program documentation.

Chapter 7

NUCLEAR CERTIFIED EQUIPMENT (NCE) PROGRAM

7.1. NCE Monitor Duties. Squadrons that operate, maintain, acquire, sustain, or modify NCE will appoint monitors from within the unit to manage the program. NCE monitors will:

7.1.1. Be appointed by their Squadron CC and must have a minimum of 1 year (projected) remaining on station.

7.1.2. Receive NCE Monitor training from 52 FW/SEW within 30 days of appointment.

7.1.2.1. Additionally, complete initial NCE Computer Based Training (CBT) located at: **https://wwwmil.nwc.kirtland.af.mil/NCEWBT_V3/index.cfm** and annual refresher training IAW AFI 63-125.

7.1.3. NCE monitor may appoint and train flight level monitors. If appointed, Flight Monitors will be trained on the reporting procedures for NCE. Documentation requirements for the flight program will be determined by the squadron monitor.

7.1.4. Inform 52 FW/SEW of any NCE related deficiencies within their unit.

7.1.5. Attend all NCE Monitor meetings scheduled and chaired by 52 FW/SEW (either the primary or alternate).

7.1.6. Verify unit NCE listing with the MNCL monthly and upload to ICE Page NLT the 5th of each month.

7.1.7. Perform an annual verification of all data plates for NCE items owned/used by the unit and report to 52 FW/SEW NLT 15 May each year.

7.1.8. Forward equipment/vehicle modification requests through the 52 FW/SEW.

7.1.9. Email a completed Spangdahlem Form 26, *Dull Sword worksheet*, to **52FW.SEW@us.af.mil** within 2 duty days of the mishap.

7.2. NCE Program Management. Unless otherwise noted, the 52 FW/SEW ICE Page will be the sole location for NCE program documentation to be maintained.

7.2.1. 52 FW/SEW will set up program folders on the ICE page for units.

7.2.2. NCE monitors will maintain current program documentation on the ICE Page.

7.2.3. Missing documentation/suspenses will be annotated with an MFR from the Nuclear Surety Monitor to 52 FW/SEW and signed by the unit CC.

7.2.4. Unless otherwise noted in the program guide, NCE monitors will only use approved 52 FW/SEW templates for program documentation.

JOSEPH D. McFALL, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoD 6055.9-Std, *DoD Ammunition and Explosives Safety Standards*, 29 February 2008

AFPD 91-2, *Safety Programs*, 24 July 2012

AFI 63-125, *Nuclear Certification Program*, 8 August 2012

AFI 91-101, *Nuclear Weapons Surety Program*, 15 August 2014

AFI 91-202, *The US Air Force Mishap Prevention Program*, 24 June 2015

AFI 91-204, *Safety Investigations and Reports,* 12 February 2014

AFI 91-208, *Hazards of Electromagnetic Radiation to Ordnance (HERO) Certification and Management*, 16 May 2013

AFMAN 33-363, *Management of Records*, 1 March 2008, and USAFESUP, 25 November 2008

AFMAN 91-201, *Explosives Safety Standards*, 12 January 2011, and USAFESUP, 27 March 2013

AFMAN 91-221, *Weapons Safety Investigations and Reports*, 8 November 2010

Prescribed Forms

SPANGDAHLEMAB Form 26, Dull Sword Worksheet

Adopted Forms

AF Form 847, Recommendation for Change of Publication

Abbreviations and Acronyms

ADWSR—Additional Duty Weapons Safety Representative

AE—Ammunition & Explosives

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directives

AFSAS—Air Force Safety Automated System

AGE—Aerospace Ground Equipment

AMS—Air Mobility Squadron

CBT—Computer Based Training

CC—Commander

CEI—CES Resources Flight

CES—Civil Engineering Squadron

DoD—Department of Defense

DS—Dull Sword

EED—Electro-Explosive Devices

EMR—Electromagnetic Radiation

EOD—Explosives Ordnance Disposal

ESP—Explosives Site Plan

FW—Fighter Wing

GSU—Geographically Separated Unit

HAS—Hardened Aircraft Shelter

HERO—Hazards of Electromagnetic Radiation to Ordnance

HN—Host Nation

IAW—In Accordance With

ISM—Installation Spectrum Manager

MFR—Memo for Record

MICT—Management Internal Control Toolset

MOC—Maintenance Operations Center

MME—Modern Mobile Emitters

MNCL—Master Nuclear Certification List

MUNSS—Munitions Support Squadron

NCE—Nuclear Certified Equipment

NEW—Net Explosives Weight

NLT—No Later Than

OPR—Office of Primary Responsibility

PGM—Precision-Guided Munitions

PRP—Personnel Reliability Program

QA—Quality Assurance

QD—Quantity Distance

RDS—Records Disposition Schedule

SAB—Spangdahlem Air Base

SE—Safety

SEW—Weapons Safety

STOV—Standortverwaltung Gerolstein

USAF—United States Air Force

USAFE—United States Air Forces in Europe

USR—Unit Safety Representative

WOMS—Work Order Maintenance System

WSM—Weapons Safety Manager

Attachment 2

FLIGHT LINE AREA MAP

Figure A2.1. Flight Line Area Map.